

주최·주관 대한심장혈관흉부외과학회

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# Intersegmental Tunneling in S9/S10 Segmentectomy: Clinical Outcomes and Complications

- Segmentectomy is advantageous in early-staged lung cancer for improved survival and parenchymal preservation.
- However, posterior or lateral basal segmentectomy (S9 and/or S10), which is a complex procedure, poses significant surgical challenges.
- We aim to retrospectively analyzes the clinical outcomes of S9 and /or S20 segmentectomy utilizing the intersegmental tunneling technique.

- In this retrospective study, patients undergoing curative anatomical S9 and/or S10 segmentectomies via video-assisted thoracoscopic surgery (VATS) between April 2011 and March 2023 were reviewed.
- Primary outcome was postoperative complications, with secondary outcome being lung plication, indicated as a fibrotic line along the stapling site.

## Preoperative baseline characteristics

Variables	Plication ≥ 5mm, n=14	Plication < 5mm, n=18	P-value
Age, years	64.5 [60.5, 71.5]	61.5 [53.0, 72.5]	0.537
Sex, male	7 (50%)	8 (44.4%)	0.755
DM	4 (28.6%)	2 (11.1%)	0.209
HTN	2 (14.3%)	5 (27.8%)	0.360
CVA	1 (7.1%)	3 (16.7%)	0.419
FEV1, % (preop)	80.73 ± 14.41	77.78 ± 9.74	0.440
Albumin, g/dL	4.21 ± 0.26	4.22 ± 0.22	0.925
Tumor size, mm	15.10 ± 7.20	15.60 ± 6.10	0.820
Segmentectomy			0.737
RS9	1 (7.1%)	2 (11.1%)	
RS10	2 (14.3%)	2 (11.1%)	
RS9+10	3 (21.4%)	7 (38.9%)	
LS9	0	1 (5.6%)	
LS10	4 (28.6%)	3 (16.7%)	
LS 9+10	4 (28.6%)	3 (16.7%)	

## Operative Results

Variables	Plication $\geq$ 5mm, n=14	Plication < 5mm, n=18	P-value
Operation time, min	186.9 $\pm$ 40.1	163.3 $\pm$ 41.5	0.117
Resection margin, mm	24.3 $\pm$ 8.1	28.3 $\pm$ 5.7	0.288
Hospital day, days	6. [4, 11]	5 [5, 8]	0.049
Complications	4 (28.6%)	0	0.028
Lung volumes, mL			<0.001
Estimated segmental volume	339.1 [240.2, 520.5]	350.4 [222.2, 675.5]	
Real resected lung volume	352.7 [259.0, 1132.0]	362.7 [210.5, 1132.0]	
Difference (real-estimated)	36.3 [-229.2, 641.2]	9.7 [-29.4, 39.8]	

- Intersegmental tunneling technique for S9 and/or S10 segmentectomy shows promise as a valuable surgical approach.
- However, the increase incidence of thick lung plication postoperatively necessitates further in-depth investigations for comprehensive understanding.